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Our Opportunities and Responsibilities in World Health*

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In considering the subject of our responsibilities and opportunities in world health, there is a series of related questions which should be answered for you:

What is the health situation in the world today?

What is the relationship of health to other problems?

What is being done about it?

How does it affect public health workers here in California?

THE WORLD HEALTH SITUATION

First, the state of health of the world. We in the United States find ourselves beginning the second half of the Twentieth Century with a population of about 150 million people. Let's keep this figure in mind as a convenient measuring stick. Despite our miscellaneous aches and pains, we are in rather good shape. Our streets, even our slums, do not present hordes of openly diseased or starving people. In the vast majority of instances we live in comfortable homes, with adequate food of wide choice, our children attend good schools, our streets and roads are extensive and of good quality, we have generally good working conditions and a reasonable amount of leisure time to devote to a wide variety of personal, social, religious, and cultural diversions. Our national death rate has reached the amazing low point of about nine deaths per 1,000 population per year, and our average life expectancy at birth the equally amazing high of almost 70 years—and the former continues to go down while the latter continues to grow longer. Because we have the advantage of widespread educational opportunities, an excellent medical profession, fine hospitals and generally avail-

able sound public health organizations, few infants die and impending motherhood is approached as a normal, natural phenomenon rather than with fear and dread.

Not only are the historic captains of death on the run; the majority have been overtaken and vanquished. Thus, in most parts of the United States it is usually impossible any longer to demonstrate to medical students cases of typhoid, diphtheria, malaria, typhus, and a host of other diseases. Even tuberculosis, while still with us, has had the biological balance turned against it and is constantly of lessening incidence.

But what of the health of the world as a whole? Frankly, not so good. It is true that a number of other countries enjoy a state of national health similar to ours, and several even better. Nevertheless, we must face the cold fact that we are the exception and not the rule—that of the approximately 2 billions of human beings on earth, the vast majority exist in a state of near or actual misery; that they constantly walk with preventable death by their sides. Here are a few examples.

Life Expectancy

While the people of the United States now have a life expectancy at birth of about 70 years, for most of the world the figure is in the thirties. In most places in the world, the baby on being born is not carefully placed in an aseptic crib in a warm air-conditioned room by a skilled masked nurse, and fed a carefully compounded formula from a sterile bottle. Rather, the cord may be bitten or cut with a stone or handy knife, and often cow dung is put on the wound as an astringent. (This practice frequently results in *tetanus neonatorum*, a not insignificant cause of infant death throughout the

*Condensation of an address given in Fresno at the November, 1952, meeting of the California Conference of Local Health Officers.

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world.) The baby is wrapped in whatever cloths may be available. Its early life is spent on the floor, jogging on the back of its mother, or in the common bed of dirty blankets in a corner of the dwelling. To compute infant death rates in most places on the basis of per 1,000 or per 10,000 live births is an absurdity. One figures in percent—30, 40, 50!

Malaria

There exist throughout the world each year about 300 million cases of malaria, twice the U. S. population. In India alone there are 100 million cases with one million deaths each year directly from this single disease, plus another million deaths estimated to be indirectly caused by it.

Schistosomiasis

Schistosomiasis is a disease spread by infected snails. The organism is the so-called liver fluke which passes from infected water through the skin into the blood, bladder, and liver, causing chronic distress, debility and frequently death. Because of the physical disability it causes, it constitutes a major economic handicap to any nation in which it occurs, such as Egypt. World-wide, the estimated number of cases approaches the figure of the U. S. population.

Helminthases

Helminthic or worm infestations represent one of the greatest drains on human energy and health, and some of them, like hookworm, are true causes of slow, dragging death. Careful estimates have been made of their extent, and the resulting figures are staggering. I recall that when I studied parasitology I was fascinated by the life story of the Dragon or Guinea worm *Dracunculus medinensis* which enters as larvae through the gastro-intestinal tract, matures, and makes its way through the tissues to appear anywhere on the skin to discharge its eggs. I also got the impression that it was very rare. This is far from actuality, since approximately 50 million people act as host to it. Hookworm, the so-called "assassin worm," which sucks the life-blood and strength of a population, affects about 460 million throughout the world, over 200 million in India alone. For the round worm *Ascaris*, the total case load has been estimated at about 650 million. China's load has been figured at 335 million cases with enough adult *Ascarids* to be equivalent to the combined weight of almost half a million adult men, and to consume enough precious food annually from the bellies of the already hungry Chinese to feed the entire nations of Guatemala and Costa Rica together.

While there are just under 2,200 millions of people on earth, there appear to be just over 2,200 millions of cases of various helminthic infestations among them.

The larger share of them are in the under-developed areas of the world.

Gastro-intestinal Infections

What of acute bacterial infections of the intestinal tract—typhoid, the paratyphoids, diarrheas, dysenteries, cholera and the like? No one dares hazard a guess—I, least of all. Certain it is, however, that by their very nature the annual number of such infections must exceed by a considerable margin the number of worm infestations.

Leprosy

I once thought and wrote of leprosy as if it were a rarely to be observed relic of the early ages. How different are the facts! In a rough survey in Bolivia with about 3 million population, we estimated the number of leproous persons at about 16,000. Much larger Brazil has about 60,000 cases on record, and smaller Paraguay has record of 12,000 lepers out of a population of 1,200,000, in other words, a prevalence of 1 percent. And these are only relatively minor aspects of the total world problem of leprosy. Both Burma and Thailand, each with about 15 million persons, have about 50,000 lepers, while India has over 1 million cases and China about 4 million.

Blindness

In India there are more than 2 million blind—mostly from trachoma, gonorrhea and syphilis. Many, many millions are affected by trachoma to a degree less than total blindness. An idea of the economic burden involved may be obtained from figures from a much smaller country. Tunisia, with only 3,500,000 inhabitants, loses about 25 million work days per year because of trachoma.

Yaws

Yaws is a disease not of death, but of disability. It is spread by crowded insanitary living. It results in ulcerous growths, extensive scarring, and disabling contractions. It is most frequently acquired in childhood and early adulthood. One injection of the proper dosage of the right type of penicillin will bring about the most dramatic, impressively rapid recovery. Yaws exists in many parts of the world, but the new Republic of Indonesia is the worst affected, with probably as many as 15 million cases in a population of about 75 million. While in this country we misuse penicillin for all sorts of minor ailments, these people wait and hope for that one injection which will enable them to work and give them back a reason for living.

Disease Epidemics

Superimposed upon multiple endemicity are frequent additional upsurges of disease. Thus in Bolivia where

I spent two recent years as director of the cooperative health program, there occurred within one four-month period epidemics of yellow fever, plague, smallpox, and typhus fever. To continue further in this vein would serve merely to labor the point. Let it suffice to say that additional possible examples of world health problems are many and varied. There is some advantage, however, in a brief look at the way of life of a very considerable portion of humanity. Most of them live in villages, usually small, which serve as the focal points of their rural life. In all but rare instances these are unplanned concentrations of squalor, filth, illiteracy, and poverty. Originally the site may have been chosen because of a stream or natural water hole, which by now is heavily polluted. Water for domestic use must be carried from a stream or well, often over a long distance. The water source, whether it is a stream, an open dug well, or a large sort of reservoir for rain water, must be shared with many creatures and for all purposes. The houses are typically of mud walls covered by thatch. Usually each family has a walled compound upon which open one or two rooms in which two or three generations of humans share shelter with various species of domestic animals. Over all is the stench of human and animal wastes and the busy hum of myriads of flies.

RELATIONSHIP OF HEALTH TO OTHER PROBLEMS

What is our stake in helping to alter this situation? Health, good or ill, does not exist in a vacuum. We need to stop thinking merely in terms of health and disease, and must think in terms of health and society. In other words, as one writer has said, "Good public health is more than the absence of disease. It is a part of good ecology." Good and adequate food is necessary to good health, but good health is a prerequisite to good agriculture. Improved economy obviously aids good health, but the latter is necessary for the former. So it goes, public health is but part of a much larger whole, and must be sought as such.

Increasingly one hears alarms by neo-Malthusians that to save further lives by the application of public health measures to the people of underdeveloped countries merely invites disaster from overpopulation—that the added lives cannot be fed. While such arguments most certainly call for serious thought and concern, there are certain off-setting factors which may readily be pointed out.

Let us consider the economic and agricultural consequences of malaria control alone. A people freed from malaria is better able to work in schools, farms and factories. It becomes more self-sufficient, its standard of living goes up, and it gradually forms an increasing market for materials and products from other places.

This has been demonstrated repeatedly and conclusively, by both private enterprise and by governmental agencies. Beyond the expected benefits of more energetic humans and more land put to better agriculture are some unanticipated results. Thus in Greece, for example, where previously four out of five people were malaria victims and dependent upon aid from outside, a vigorous DDT campaign since 1947 not only has practically eradicated the disease by destroying mosquitos and increased agricultural production as much as 40 percent, but the concurrent effect upon other insect pests has resulted in significant weight gains and milk yields of cattle, increased egg yields of poultry, and has saved the olive industry by wiping out the Dakus fly.

Across India and Nepal, at the base of the Himalayas lies the Terain plain, a vast tract of rich and fertile land. Since time immemorial it has been the haunt of tigers, elephants, and malaria-bearing anophelines. Repeated attempts to settle the area have failed because of malaria. This great area so badly needed to feed the people of India is now finally being opened up as a result of a vigorous DDT campaign. Since 1948, 35,000 acres have been cleared and put into production, and 11 new industrial undertakings such as flour and rice mills and fruit preservation plants have been initiated. By 1951 the population was almost 300,000, and this is just a beginning. Incidentally, one Indian official wryly pointed out that this was probably the only instance of DDT eradicating tigers—their forests were taken away from them. If malaria is removed from India (and it can be done), it will mean regaining 9 million man-days of productive labor per year which would have been lost due to the disease. True, the Indian and other governments will need help, some of it from us. But if we do not give it, what is the result? It has been estimated that we pay the equivalent of a 5 percent "malaria tax" on everything we import from a malarious country, and for India alone this amounts to \$13,000,000 per year.

Consider the economic significance of just one other disease situation. Lying across Central Africa is a broad belt of what many consider to be some of the best agricultural and grazing land in the world—equal or better in quality to that of our midwest or Argentina. This area is barred from human use largely because of malaria and another insect-borne disease, trypanosomiasis or African sleeping sickness. The total area involved is about $4\frac{1}{2}$ million square miles. May I point out that the *total* area of continental United States, including the areas of inland waters, comprises 3,022,000 square miles? In other words, this potential agricultural area in Central Africa is about 50 percent again as large as all of the United States. Think of the world significance of putting it to use.

WHAT IS BEING DONE

What is being done? Much, I am sure, you are familiar with. There are three intimately interwoven elements in the international health movement.

1. World Health Organization

Perhaps most important in the long run is the multi-lateral joint action of all nations through the World Health Organization of the U. N. WHO represents a true and complete sharing of all available resources of mind and pocketbook toward a common goal. It has an appeal to all nations because all—big and small, rich and poor—have a voice and an opportunity to participate as partners.

2. Private Agencies

Another element, smaller perhaps in size, but first in pioneering in world health, is the private or voluntary efforts represented by the Rockefeller Foundation, the W. K. Kellogg Foundation, the Unitarian Service Committee, and a host of other private agencies. A very significant event is the recent addition of the broad-visioned Ford Foundation.

3. Technical Cooperation Administration

Of great importance in a world of eccentric economic balance are the bilateral programs represented by the Point 4 programs of the Mutual Security Administration and particularly of the Technical Cooperation Administration. Through these programs the United States offers added strength and impetus to efforts in underdeveloped areas of the world. Now the concept of technical cooperation is in no sense new, particularly to Americans. We, in the process of developing our country, have a long-standing behavioral philosophy of "helping our neighbor." During the pioneering days, and in some places even yet, every part of this great country of ours has had some type of "barn raising" activity in which established householders helped the newcomers to get established.

These activities were based upon genuine good neighborliness and the concept that to help the development of the individual in need was to help the development of the whole community. Today, faced with the fact of shrinking world horizons, our neighbors are not just the folks across the street, down the road, or over in the next county. With regard to interstate relationships we have long since learned to appreciate the inherent soundness of the statement that "we must all hang together or we shall all hang separately." Our interstate dependence has become well established. Now we find ourselves in a situation where our good neighbors are all men of good will in all of the well-intentioned nations throughout the world, rich or poor, new or old, advanced or underdeveloped. And, if we are in fact

what we have always claimed to be, good neighbors, it behooves us to lend a neighborly hand of help and assistance to those peoples and to those nations who with good hopes and intentions are trying to get a start, trying to overcome past, present or impending disaster, or trying to do a better job within their potential resources than they have been able to do in the past. This is the philosophy of the Point 4 program—it's as simple as this. Under that title it began when the President of the United States in his Inaugural Address on January 20, 1949, called upon the American people in the wisdom and goodness of their heritage to add a "fourth point" of strength to the nation's foreign policy.

The Point 4 programs have the advantages of great elasticity and breadth of approach. They attempt to view a country or a region as a whole, not just from the standpoint of one discipline alone. For example, a given country may obtain in combination technical assistance and materials for the improvement of public health, agriculture, education, roads, fisheries, village or home industries, professional training, political science, public administration or any other phase of human activity. The Institute of Inter-American Affairs, which is now an integral part of the Technical Cooperation Administration, has shown the way of accomplishment through the dramatic results of its cooperative health, agriculture, and education programs in Latin America during the past decade. In the field of health, some 2,820 distinct projects have been undertaken in this program; 474 projects are currently active. These projects have included operation of 121 health centers; construction of 201 water supply systems, 74 sewerage systems, and 342 other health facilities, such as hospitals, nursing schools, laboratories, markets, and public laundries. Underlying this has been a training program: 1,302 Latin American professional persons have been given advanced training in public health through fellowships; technical assistance and financial aid have been given to the Schools of Public Health in Mexico, Santiago, and São Paulo; and 240 local training courses have been given at sub-professional levels.

At the present time there are about 1,265 U. S. technicians from all of the various disciplines and professions working on Point 4 projects in 35 countries. About 300 of them are involved in the public health programs. Included in this group are sanitary engineers and other engineers, architects, physicians and dentists, nurses, health education consultants, hospital administrators, and laboratory technicians. Approximately 20 percent of the total are nonpublic-health business managers and chief supervisors. In addition, some 7,000 foreign nationals are participating in these cooperative health

programs. Of that number, approximately 3,500 are unskilled and skilled laborers.

EFFECT ON PUBLIC HEALTH WORKERS

Today there is a shortage of public health personnel in the United States. Approximately 20 percent of the positions for public health physicians in state and local health departments stand vacant. But at the same time, the health problems abroad are increasingly becoming our problems and our opportunity for contributing to world development, to our own economic progress as well as that of other nations, and to protection against invasion of exotic diseases. With half the world sick, foreign health problems have become a domestic concern of every part of the United States.

The state and local health departments, including those in California, the great universities, and the voluntary agencies, where so much know-how and wisdom resides, must take on as part of their responsibility an important share of the work abroad. They must avail themselves of this opportunity to serve the cause of America and humanity, and to grow and learn in the process.

COST TO THE U. S.

And finally a word about cost. As citizens and taxpayers, we rightfully are concerned about taxes and government expenditures. Too often, however, I fear that we hear of what seem to be large total sums of appropriations, and unconsciously or habitually object without considering what is involved for each of us, both in terms of individual costs and individual gain. The United States is contributing this year in joint public health endeavors approximately \$35,000,000 to the World Health Organization and to the bilateral programs such as the Technical Cooperation Administration. The countries with which we are cooperating are spending in these programs at least three to four times that amount. Thus it is not just a "Santa Claus" program. Our contribution to the World Health Organization amounts to three or four cigarettes per capita in the United States. All of the rest costs us each about 15 cigarettes per year. The total—the price of a couple of soft drinks or a pack of cigarettes. Considering the misery I have inadequately tried to picture for you, do you think it's too much? I don't!

Polio Foundation Announces Awards

The National Foundation for Infantile Paralysis announced the approval of research and professional education projects totaling \$2,586,271, which took effect January 1, 1953. The awards go to 32 medical schools, hospitals, research institutions and educational

NOTICE OF HEARING

The State Board of Public Health will hold a hearing at 10 a.m. on April 17, 1953, in Room 668, Phelan Bldg., 760 Market St., San Francisco, on proposed amendment of Section 2905, and promulgation of new regulations to follow thereafter in Group 1, Article 1, Subchapter 3, Chapter 4, Title 17, of the California Administrative Code, pursuant to the authority of the Health and Safety Code, Section 208.

The above regulations cover the Minimum Standards for the Care of Physically Handicapped Children. The proposed additions cover the administration of the program and the distribution of funds.

Copies of the proposed regulations are available for inspection in the California State Department of Public Health, Los Angeles and San Francisco offices. Said proposed regulations are made a part of this notice by reference.

WILTON L. HALVERSON, M.D.
Executive Officer
State Board of Public Health

Mrs. Eleanor K. Middlehoff Dies After Long Illness

Mrs. Eleanor K. Middlehoff, former supervising clerk of the State Department of Public Health, died in Berkeley on February 25th. When she retired in 1945 Mrs. Middlehoff had completed 38 years of outstanding service to the department.

Her period of service was under 11 State Health Officers, and under the administration of the last five she was closely associated with the State Board of Public Health. Her keen mind and phenomenal memory made it possible for her to give valuable assistance in preserving continuity through different administrations. She was considered an authority on legislative and legal aspects of California's public health program and her final contribution to the department before her retirement was the codification for publication of the rules and regulations of the State Board of Public Health.

The many friends she made during her years with the department feel a personal loss in her death. They include many who received help and encouragement from her early in their careers and who have become recognized leaders in public health.

organizations. With the exception of one institution in Canada, all of the grantee organizations are located in the United States.

Three grants were made to California institutions for investigations dealing with virus research:

University of California at Los Angeles, Los Angeles, Calif., \$55,150, under the direction of Dr. A. F. Rasmussen, Jr., Professor of Infectious Diseases.

California Institute of Technology, Pasadena, Calif., \$26,620

under the direction of Dr. Max Delbrück, Professor of Biology.

California Institute of Technology, Pasadena, Calif., \$41,096, under the direction of Dr. Renato Dulbecco, Associate Professor of Biology.

Gamma Globulin Supply Inadequate to Meet Polio Demands

The supply of gamma globulin to California for use in the prevention of infantile paralysis during the 1953 polio season is expected to be extremely inadequate to meet the anticipated demand of California parents desiring this protection for their children. This is the dilemma facing the advisory committee of medical, public health and technical experts appointed to assist the State Department of Public Health in developing a plan for the distribution of gamma globulin in California. (See article in this issue listing names of this committee.) The committee was appointed by the State Board of Public Health March 6th, and held its first meeting with the department on March 11th to explore the overwhelming task assigned to it.

On March 13th, the Office of Defense Mobilization, the federal agency designated to parcel out the available supply and to establish policies for its use, notified the State Department of Public Health that California would receive an initial allotment of gamma globulin about May 1st. This allotment will be on the basis of 40 c.c. times the median number of reported cases for the five-year period, 1947-1951. This median is approximately 3,000 cases, which means California's initial allotment would be approximately 120,000 c.c. This would be about 12,000 immunizing doses; 10 c.c. is considered an average protective dose. Additional gamma globulin will be made available, based on this season's occurrence of poliomyelitis, using a formula yet to be developed by the National Research Council. The National Research Council has been asked by the Office of Defense Mobilization to gather together experts to give advice on allocations.

Present information indicates that the entire Nation's supply for use this year will be about 1 million protective doses. California alone has about 3 million children under 20 years of age—the group of highest susceptibility to infantile paralysis.

While it is a fact that there just won't be enough gamma globulin to go around, it is also true that gamma globulin leaves much to be desired as a protective agent.

There is evidence indicating that gamma globulin does not prevent paralysis from occurring in all cases, and it has no apparent value in the treatment of the disease after symptoms have been recognized. Further, its immunizing ability is temporary. There is apparently little preventive effect for the first week after the injection is given, which means that persons already exposed when the immunizing dose is given could become ill before the injection had time to take effect. The immunizing effect of gamma globulin is believed to last only about five to six weeks. Therefore, unless the child has had a mild form of the disease during

Board Appoints Advisory Committee on Gamma Globulin Distribution

A 16-member advisory committee has been appointed by the State Board of Public Health to assist the State Department of Public Health in developing a plan for the distribution in California of gamma globulin for the prevention of infantile paralysis.

The need for a representative advisory committee is emphasized by the expected acute inadequacy of the supply of gamma globulin to meet the anticipated demand during the coming polio season. (See article on shortage in this issue.)

The advisory committee is composed of technical consultants and of representatives of the California Medical Association, the California Osteopathic Association, the California Conference of Local Health Officers and other organizations, as follows:

Dr. Francis West, San Diego; Dr. H. Clifford Loos, Los Angeles; and Dr. Hollis Carey, Gridley, represent the Public Health Committee of the California Medical Association.

Dr. J. Gordon Epperson, Oakland, represents the California Osteopathic Association.

Dr. Roy O. Gilbert, Los Angeles County Health Officer; Dr. Henrik L. Blum, Contra Costa County Health Officer; and Dr. W. Elwyn Turner, Santa Clara County Health Officer, represent the California Conference of Local Health Officers.

Technical experts include Dr. Karl F. Meyer, Director of the Hooper Foundation Medical Center, University of California, San Francisco; Dr. E. B. Shaw, of Children's Hospital, San Francisco; Dr. Walter Ward, associated with one of the laboratories which fractionates gamma globulin from whole blood, Berkeley; and Dr. A. G. Bower, Los Angeles County General Hospital.

Four members of the State Board of Public Health, Dr. Charles E. Smith, Berkeley; Dr. Samuel J. McClendon, San Diego; Dr. James R. Rinehart, San Francisco; and Dr. Harry E. Henderson, Santa Barbara, serve with the committee.

Dr. William P. Shepard, San Francisco, a member of the Health Resources Advisory Committee of the Office of Defense Mobilization, the branch of ODM which is assigned the task of distributing gamma globulin, will meet with the California advisory committee.

the interval in which he was partially protected, he again becomes susceptible to the disease.

Greater hope than in gamma globulin appears to lie in the development of a polio vaccine. Members of the advisory committee are confident that a satisfactory vaccine can be produced for general use within the next few years.

National Conference on Trichinosis Makes Recommendations

The First National Conference on Trichinosis was held in the auditorium of the American Medical Association, Chicago, December 15-16, 1952. Ben H. Dean, D.V.M., Head, Veterinary Public Health Section, Bureau of Acute Communicable Diseases, State Department of Public Health, represented the department at the meeting. Recommendations of the various sections of the conference are given below. These recommendations are only suggestions and are not binding in any way on the conferees.

Recommendations Adopted by First National Conference on Trichinosis

Co-sponsors

American Board of Veterinary Public Health
 American Medical Association
 American Society of Clinical Pathologists
 American Veterinary Medical Association
 Association of State and Territorial Health Officers
 Conference of Public Health Veterinarians
 United States Public Health Service
 Michigan-Memorial Phoenix Project, University of Michigan

I. Recommendations of Public Health Section

Trichinosis is a preventable disease of public health significance for which known methods of control are available. Public health organizations should encourage, support and cooperate with animal disease control agencies in efforts directed toward the ultimate eradication of trichinosis. Control measures against trichinosis are also effective against other diseases of swine transmissible to man.

The following research should be encouraged:

1. Effect of ionizing irradiation on trichinae in hog carcasses.
2. Specific diagnostic tests for trichinosis in man and swine.
3. Alternate methods of garbage disposal.
4. Standardization of garbage processing methods, including development of equipment with time and temperature studies.

Public health education should be accelerated in order (1) to emphasize to the public and to physicians the hazards of contracting trichinosis, and (2) to disseminate all existing information on methods of control of trichinosis, including alternate methods of garbage control. Such information should be consolidated in one publication.

It is recommended that the feeding of raw animal offal to swine be prohibited; that all garbage to be fed to hogs shall be adequately heat-treated; that states be encouraged to adopt uniform garbage-cooking regulations; that the U. S. Public Health Service Interstate Quarantine Regulations relating to raw garbage be enforced; and that these recommendations be brought to the attention of the Council of State Governments.

It is recommended that the Bureau of Animal Industry prohibit interstate shipment of all raw pork from swine that have been fed raw garbage.

II. Recommendations of Animal Health Section

Swine diseases that are garbage-borne include hog cholera, vesicular exanthema, foot-and-mouth disease, salmonellosis, tuberculosis, and trichinosis. Other diseases including brucellosis, anthrax, and pork tapeworm may also be transmitted by ingestion of contaminated flesh. Adequate cooking of garbage would control the route of garbage transmission of these diseases.

It is recommended that the respective states only allow the sale of garbage-fed hogs for slaughter at a federally inspected plant or plant having equivalent inspection.

It is further recommended that no indemnity be paid for losses from animal diseases at piggeries where raw garbage is fed. It is emphasized that the most important aspect of the problem of swine diseases that are garbage-borne are the animal vesicular diseases and hog cholera.

It is urged that research be initiated on the merits of garbage-cooking as to its nutrient advantages and the control of communicable diseases, in comparison with garbage that is fed raw.

It is suggested that studies be made on means of identification of garbage-fed hogs, such as ear-tattooing.

III. Recommendations of Legislation Section

The National Conference on Trichinosis resolves to encourage its members and their organizations to do everything possible to promote and obtain the enactment and enforcement, in each of the 48 states and territories, of laws and/or regulations prohibiting the feeding of raw garbage or offal to swine.

It is recommended that the member organizations of this conference and the Federal Government study the possibility of implementing by January 1, 1955, federal quarantine on a state-wide basis, and of refusal to allow live hogs or raw pork to move out of any state which shall not have and enforce a regulation requiring the cooking of hog-feed garbage and offal at licensed cooking establishments where adequate mechanical recording controls are maintained.

IV. Recommendations of Education Section

It is recognized that educational measures are an essential part of a trichinosis control program.

It is recommended that educational measures should be further developed and extended into the following areas:

1. Where garbage is fed commercially to swine, disinfection of garbage and adoption of other sanitary measures should be promoted.

2. Continuation of the program of informing housewives and other food handlers of the necessity of cooking all pork and pork products thoroughly.

3. Increased efforts toward improvement of diagnostic procedures to reveal the number of infections in man and hogs, such as making available antigen for the rapid flocculation test in health department and other laboratories.

4. Since most control of garbage feeding is directed toward the commercial feeder, a program is necessary to persuade the farmer, feeding his own household garbage to swine for his own use, to separate all raw pork scraps and offal from his swine feed.

5. Greater dissemination to communities of available information on other methods of garbage disposal.

Yellow Fever Vaccination Center Moved

The State Department of Public Health has been notified by the Regional Office of the U. S. Public Health Service that the yellow fever vaccination center for Northern California has been moved. Yellow fever inoculations were formerly available to the public at the U. S. Public Health Service Outpatient Clinic in the Appraisers Building, 630 Sansome Street, San Francisco. That clinic was moved on March 13, 1953, to the U. S. Public Health Service Hospital, 15th and Lake Street, San Francisco. The clinic at the new location will give yellow fever inoculations to prospective travelers whose destinations require it, on Tuesday and Thursday afternoons by appointment only. (Telephone SK yline 2-1400, extension 235).

For the Southern California area yellow fever inoculations are available as usual at the U. S. Public Health Service Outpatient Clinic, 406 Federal Building, Los Angeles 12, from 1.30 to 2.00 p.m., Mondays through Fridays. (Telephone: Madison 7411, extension 100).

Opening for Sanitarian

The Inyo County Health Department has an opening for a registered sanitarian. The present salary range is \$350 to \$375 a month. Either a car will be provided or a gas mileage allowance of 7 cents a mile will be given. Those interested should write to Victor H. Hough, M.D., County Health Officer, Inyo County Health Department, Independence.

Review of Reported Communicable Disease Morbidity—February, 1953

Diseases With Incidence Exceeding the Five-year Median

Diseases	Feb., 1953	Feb., 1952	Feb., 1951	5-year median
Amebiasis	46	54	42	34
Brucellosis	5	12	3	3
German measles	956	877	539	539
Hepatitis, infectious	64	37	29	29
Influenza	2,285	580	934	580
Mumps	3,352	2,856	1,780	2,856
Poliomyelitis	145	78	76	72
Rabies, animal	9	3	3	4
Salmonella infections	23	17	15	10
Streptococcal infections, resp., including scarlet fever	745	1,066	952	662
Typhoid fever	8	6	2	6

Diseases Below the Five-year Median

Diseases	Feb., 1953	Feb., 1952	Feb., 1951	5-year median
Chickenpox	3,207	6,376	4,881	4,881
Diphtheria	6	17	23	33
Encephalitis	2	1	7	5
Measles	2,683	2,183	6,101	3,266
Meningitis, meningococcic	41	45	42	43
Pertussis	232	287	199	287
Shigella infections	27	31	35	31

Tuberculosis and the Venereal Diseases

Venereal Diseases	Feb., 1953	Feb., 1952	Feb., 1951	5-year median
Syphilis	490	608	759	787
Gonococcal infections	1,306	1,144	1,204	1,352
Chancroid	27	39	32	1
Granuloma inguinale		1	1	1
Lymphogranuloma venereum	3	8	10	1
Tuberculosis (all forms)	880	592	658	1

¹ Median not calculated.

Civil Service Examinations

Public Health Medical Officer II

The California State Personnel Board has announced that a nation-wide examination will be held May 7, 1953, in California and other states for the position of Public Health Medical Officer II with the State Department of Public Health.

The final date for filing applications is April 9, 1953. Salary range: (A) \$644-\$782; (B) \$676-\$821; (C) \$745-\$905. The entering salary range is dependent on the candidate's professional qualifications, and progression can be made from one range to another by additional professional attainment without further examination.

All applicants must be U. S. citizens. California residence is not required. Graduation from an approved medical school, completion of an internship in an approved hospital, three years full-time public health medical experience in a public health agency, and possession of the legal requirements for the practice of medicine in California are entrance requirements.

For additional information about the position and the examination, address the California State Personnel Board, 1015 L Street, Sacramento 14.

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